0127

TS

C

Total No. of Questions – 21

Total No. of Printed Pages - 2

Regd. No.

Part – III
BOTANY, Paper-I
(English Version)

Time : 3 Hours] **[Max. Marks : 60**

Note : Read the following instructions carefully :

(1) Answer **all** questions of Section – **A**. Answer any **six** questions out of **eight** in Section – **B** and answer any **two** questions out of **three** in Section – **C**.

(2) In Section – **A**, questions from Sl. Nos. **1** to **10** are of "Very Short Answer Type". Each question carries **two** marks. Every answer may be limited to **5** lines. Answer **all** the questions at one place in the same order.

(3) In Section – **B**, questions from Sl. Nos. **11** to **18** are of "Short Answer Type". Each question carries **four** marks. Every answer may be limited to **20** lines.

(4) In Section – **C**, questions from Sl. Nos. **19** to **21** are of "Long Answer Type". Each question carries **eight** marks. Every answer may be limited to **60** lines.

(5) Draw labelled diagrams wherever necessary for questions in Section – **B & C**.

SECTION – A

Note : Answer **all** questions. Each answer may be limited to **5** lines : **$10 \times 2 = 20$**

1. Give the scientific name of mango. Identify the generic name and specific epithet.
2. Why is Mendel considered as the Father of Genetics ?
3. What is palaeobotany ? What is its use ?
4. What is the morphology of cup like structure in cyathium ? In which family it is found ?
5. Define venation. How do dicots differ from monocots with respect to venation ?
6. What is geocarpy ? Name the plant which exhibits this phenomenon.
7. What does 's' refer in a 70s and 80s ribosome ?

8. An anther has 1200 pollen grains. How many pollen mother cells must have been there to produce them ?

9. Define population and community.

10. What is the difference between a nucleoside and nucleotide ?

SECTION – B

Note : Answer any six questions. Each answer may be limited to 20 lines : $6 \times 4 = 24$

11. Give the salient features and importance of chrysophytes.

12. Differentiate between red algae and brown algae.

13. Identify each part in a flowering plant and write whether it is haploid (n) or diploid (2n) :

(a)	Ovary	(b)	Anther
(c)	Egg	(d)	Pollen
(e)	Male gamete	(f)	Zygote
(g)	Antipodal	(h)	Mega Spore mother cell

14. Write a brief account on the class of Dicotyledonae of Bentham and Hooker's classification.

15. Describe the structure and functions of power house of cell.

16. Though redundantly described as a resting phase, interphase does not really involve rest. Comment.

17. What are the differences between lenticels and stomata ?

18. Give in detail the anatomical adaptations shown by Xerophytes.

SECTION – C

Note : Answer any **two** questions. Each answer may be limited to 60 lines : $2 \times 8 = 16$

19. Define root modification. Explain (with diagrams) how root is modified to perform different functions.

20. Write a brief account on agents of pollination.

21. Describe the internal structure of dorsiventral leaf with the help of labelled diagram.